```
S PN=DE 3911610
     S2
              1 PN=DE 3911610
T S2/9
  2/9/1
DIALOG(R) File 351: Derwent WPI
(c) 2006 Thomson Derwent. All rts. reserv.
008434339
             **Image available**
WPI Acc No: 1990-321339/ 199043
XRAM Acc No: C90-139150
XRPX Acc No: N90-246128
 Artificial disk - for implantation between vertebrae made of specified
biocompatible materials
Patent Assignee: BOSCH GMBH ROBERT (BOSC )
Inventor: ESPER F; GOHL W; HARMS J; OBERLE J
Number of Countries: 014 Number of Patents: 006
Patent Family:
Patent No
              Kind
                     Date
                             Applicat No
                                             Kind
                                                    Date
                                                             Week
Α
                   19901018
                             DE 3911610.
                                             Α
                                                  19890408
                                                            199043
WO 9011740
               Α
                   19901018
                                                            199044
EP 465514
               Α
                   19920115
                            EP 90905181
                                             Α
                                                  19900405
                                                            199203
EP 465514
                   19930113 EP 90905181
               B1
                                             Α
                                                  19900405
                                                            199302
                             WO 90DE266
                                              Α
                                                  19900405
DE 59000763
                   1.9930225
                             DE 500763
                                              Α
                                                  19900405
                                                            199309
                             EP 90905181
                                             Α
                                                  19900405
                             WO 90DE266
                                              Α
                                                  19900405
ES 2038517
               Т3
                  19930716 EP 90905181
                                              Α
                                                  19900405
Priority Applications (No Type Date): DE 3911610 A 19890408
Cited Patents: EP 107476; EP 298233; EP 356112; US 4309777
Patent Details:
Patent No Kind Lan Pg
                         Main IPC
                                      Filing Notes
WO 9011740
              Α
   Designated States (National): US
   Designated States (Regional): AT BE CH DE DK ES FR GB IT LU NL SE
EP 465514
   Designated States (Regional): CH DE ES FR IT LI
EP 465514
              B1 G
                     4 A61F-002/44
                                     Based on patent WO 9011740
   Designated States (Regional): CH DE ES FR IT LI
DE 59000763
                       A61F-002/44
                                     Based on patent EP 465514
                                      Based on patent WO 9011740
ES 2038517
              Т3
                       A61F-002/44
                                     Based on patent EP 465514
Abstract (Basic): DE 3911610 A
```

An artificial disk for implanting to replace a slipped disk between two vertebrae of the spinal column is made of a carrier disk (1) of silicone rubber with a rectangular or conical cross-section. Both sides of the carrier are lined by cover plates (2) made of carbon fibre reinforced thermosets, pref. of RECIFORM -TCF (TRIAZIN resin/C fibre). A rim bead (3) shapes the disk to suit the vertebrae. To join the disks to the bones, a layer of hydroxylapatite or of a mixt. of it with an ALPHA or BETA tricalciumphosphate is applied to the cover plate.

ADVANTAGE - This can be implanted in one piece, not in parts as in the conventional case. The new implant suffers no abrasion which is an extremely useful point. $(4pp\ Dwg.No.1-3)$

Abstract (Equivalent): EP 465514 B

Artificial intervertebral disc for implanting between two vertebrae of the spinal column, characterised in that a substrate (1) of a biocompatible silicone rubber is covered on both sides by cover panels (2) of a carbon fibre-reinforced, biocompatible thermoset material. (Dwg.2/3)

Title Terms: ARTIFICIAL; DISC; IMPLANT; VERTEBRA; MADE; SPECIFIED; BIOCOMPATIBLE; MATERIAL

Derwent Class: A96; D22; P32; P34

International Patent Class (Main): A61F-002/44

International Patent Class (Additional): A61L-027/00

File Segment: CPI; EngPI

Manual Codes (CPI/A-N): A06-A00E3; A12-S08C; A12-S08D; A12-V02; D09-C01D

Plasdoc Codes (KS): 0009 0011 0020 0231 1306 1311 3191 2020 2213 2675 3258 2765 2657

Polymer Fragment Codes (PF):

001 014 032 04- 05- 153 229 23& 231 308 309 38- 43& 473 50& 525 55& 597 598 62- 645 651 684 720 723

Derwent Registry Numbers: 5086-U